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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/956,954	09/21/2001	Walter Etter	Etter 4/AGER027	2462

7590 03/21/2005

Docket Administrator  
Agere Systems, Inc.  
P.O. Box 614  
Berkeley Heights, NJ 07922-0614

EXAMINER
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JAMAL, ALEXANDER

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/956,954

Applicant(s)

ETTER, WALTER

Examiner

Alexander Jamal

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10-26-2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Response to Amendment

1. Based upon the submitted amendment, the examiner notes that claim 1 has been cancelled, claims 2-20 amended, and claim 21 added.
2. Examiner withdraws the objection to claim 20.

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 2-21** rejected under 35 U.S.C. 102(b) as being anticipated by Matt et al (5909489).

As per **claim 21**, Matt discloses a noise compensation system (Fig. 2a) comprising a noise estimator for signal  $x(k)$  (Col 2 line 65 to Col 3 line 10, Fig. 2a). The system further comprises compander (section 3.7 and parts of echo suppressor 3 in Fig. 2a) that receives signals  $y(k)$  and a noise estimate of signal  $x(k)$ . The compander unit outputs compensated signal  $y_{out}(k)$ . The system further comprises gain control unit 3.8 to vary the compression/expansion ranges used by compander 3.7 to compensate signal  $y(k)$  based upon the noise level estimate of  $x(k)$  (Col 3 lines 10-22)(Col 7 lines 14-44).

As per **claim 11**, claim rejected as a method performed by the device of the claim 21 rejection.

As per **claim 2**, claim rejected for same reasons as claim 21 rejection.

Additionally, the system further comprises a noise estimator that receives signal  $y(k)$  and generates a noise estimate based on the  $y(k)$ . This value (electrical coupling factor signal) is also used to adaptively vary the compression and expansion settings of the compander.

As per **claim 3**, the compander ranges (compression and expansion) are varied based upon a gain derived from the noise estimate and speech signal estimate (Col 3 lines 9-11).

As per **claims 4,5**, the system further comprises a gain controller 3.7 that varies signal gain based upon the ratio of the noise estimate of the input ( $y_{sam}$  in Fig. 3a) and a noise level threshold value (defined by  $u_{min}$ ,  $u_{so}$ , and  $u_{max}$  in Fig. 3). The output gain ( $y_{outsam}$ ) is between a minimum and maximum.

As per **claims 6-10**, claims rejected for same reasons, respectively, as claims 1-5, if an additional compander system (second compander) was located at the 'far-end' as opposed to the 'near-end'. Matt's system may be implemented in any transmission link in a telecommunications network (Col 1 lines 10-25) which includes both a 'near end' and 'far end' point in the network.

As per **claims 12-19**, claims rejected for the same reasons, respectively, as claims 2-9. The apparatus described would perform the method of the claims.

### **Response to Arguments**

4. Applicant's arguments with respect to **claims 2-21** have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 703-305-3433. The examiner can normally be reached on M-F 8AM-5PM.

Art Unit: 2643

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9315 for After Final communications.

AJ

March 10, 2005

  
CURTIS KUNTZ  
JOINT PATENT EXAMINER  
BIOLOGY CENTER